

NOMENCLATRURAL CHANGES AND NEW SPECIES OF SCOLYTIDAE (COLEOPTERA)

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ABSTRACT.—New replacement names for junior homonyms are presented as follows: *Acanthotomicus tuberculifer* for *A. (Mimips) tuberculatus* Schedl 1967, *Chaetoptelius versicolor* for *C. (Acrantus) tricolor* Schedl 1958, *Hylesinopsis angolanus* for *H. (Aridiamerus) angolensis* Schedl 1982, *Ilyburgops tuberculifer* for *H. tuberculatus* Schedl 1947, *Pseudothysanoes spinatifer* for *P. spinatus* Wood 1956, *Scolytodes aterrimus* for *S. ater (Hylocurosoma atrum* Eggers) 1941, *Scolytodes boliviensis* for *S. (Prionosceles) bolivianus* Eggers 1928, *Scolytodes brasiliensis* for *S. (Hexacolus) brasiliensis* Schedl 1935, *Scolytodes discriminatus* for *S. discedens* Eggers 1943, *Scolytodes clongatissimus* for *S. clongatus (Hylocurosoma clongatum* Eggers) 1943, *Scolytoles genuanus* for *S. genialis* Wood 1978, *Scolytodes laevigatulus* for *S. (Hexacolus) laevigatus* Schedl 1962, *Scolytodes laevicorpus* for *S. laevis (Hylocurosoma laevis* Eggers) 1943, *Scolytodes majus* for *S. major* Eggers 1943, *Scolytodes medialis* for *S. medius* Eggers 1943. New synonymy is reported for *Dactylipalpus niger* Schedl (= *D. unctus* Wood), *Dendroctonus armandi* Tsai & Li (= *D. prosorovi* Kurenzov & Kononov), *Sinophiloeus porteri* Brèthes (= *S. destructor* Eggers). Species new to science include: *Acacis bicornis* (New Guinea), *Acacis zeylanicus* (Sri Lanka), *Sphaerotrypes bengalensis* (India), *Sphaerotrypes costatus* (North Andaman Island), *Sphaerotrypes cristatus* (Sri Lanka), *Sphaerotrypes pentacme* (Burma), *Sphaerotrypes ransinghei* (Sri Lanka), *Xylechinus ongeninae* (India), *Xylechinus padus* (India).

On the following pages 15 new names are presented as replacements for newly discovered junior homonyms, 3 new cases of synonymy are reported, and 9 species new to science are described. These items are necessary nomenclatural housekeeping discovered during the preparation of a new world catalog of Scolytidae and are published here to facilitate citation for the catalog. The new names affect species from Angola (1) and Zaire (1) in Africa; USA and Mexico (1) in North America; Argentina (1), Bolivia (7), Brazil (1), and Venezuela (1) in South America; New Zealand (1); and Baltic amber from Europe (1). The new synonymy affects species from Chile (1), China (1), and the Philippine Islands (1). The species new to science are from the Andaman Islands (1), Burma (1), India (3), New Guinea (1), and Sri Lanka (Ceylon) (3).

NEW NAMES

Part of the task of preparing a new world catalog of Scolytidae is the review of all available names. My review of the genera (Wood 1986, Great Basin Naturalist Memoir No. 10) included considerable generic synonymy that resulted in the formation of a number of secondary homonyms. This has made it neces-

sary to rename those junior homonyms when synonyms are not available to fill this need. Fifteen new names are presented below.

Acanthotomicus tuberculifer, n. n.

Mimips tuberculatus Schedl, 1967, Opusc. Zool. Budapest 7(1):230 (Holotype, male; Bouenza cataract, Congo; Budapest Nat. Mus.), preoccupied

When *Mimips* became a synonym of *Acanthotomicus*, it was necessary to transfer *M. tuberculatus* Schedl 1967:230 into *Acanthotomicus*. Because *Ips tuberculatus* Eggers 1927:79 had previously been transferred into that genus, Schedl's name became a junior homonym. The new name *tuberculifer* is proposed as a replacement for the junior homonym as indicated above.

Chaetoptelius versicolor, n. n.

Acrantus tricolor Schedl, 1958, Ann. Mag. Nat. Hist. (13)1:560 (Holotype, sex?, Nelson, New Zealand; British Mus. [Nat. Hist.]), preoccupied

The holotype of *Lepersinus tricolor* Schedl 1938:34 was examined and was found to be a member of the genus *Chaetoptelius*. Because the genus *Acrantus* has been placed in synonymy under *Chaetoptelius* (Wood 1986:42),

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the name *Acrantus tricolor* Schedl 1958:560 became a junior homonym of Schedl's 1938:34 name and must be replaced. The new name *versicolor* is proposed as a replacement for this junior homonym.

Hylesinopsis angolamus, n. n.

Aridiamerus angolensis Schedl, 1982, Ann. Transvaal Mus. 33(15):284 (Holotype, sex?; Angola; Schedl Collection in Wien Museum), preoccupied

As indicated above, the genus *Aridiamerus* Schedl 1982 is a junior synonym. Its type-species, *angolensis* Schedl, therefore, is transferred to *Hylesinopsis*, where it becomes a junior homonym of *angolensis* Schedl 1959:24. The new name *angolamus* is proposed as a replacement for this junior homonym.

Hylurgops tuberculifer, n. n.

Hylurgops tuberculatus Schedl, 1947, Zentralbl. Gesampt. Ent. 2(1):28 (Holotype, sex?; fossil in Baltic amber; Geol.-Paleont. Inst. Albertus-Univ., Königsburg), preoccupied

Schedl 1947:28 named *Hylurgops tuberculatus*, a fossil from Baltic amber; however, this name was preoccupied by Eggers 1933:98. The new name *tuberculifer* is proposed as a replacement for the junior homonym, *tuberculatus* Schedl.

Pseudothysanoes spinatifer, n. n.

Pseudothysanoes spinatus Wood, 1956, Canadian Ent. 88:154 (Holotype, male; 27 km W. Tehuantepec, Oaxaca, Mexico; University of Kansas Collection), preoccupied

When the genus *Bostrichips* became a junior synonym of *Pseudothysanoes* (Wood 1986:63), the name *P. spinatus* Wood 1956:154 became the junior homonym of *B. spinatus* Schedl 1951:21. The new name *spinatifer* is proposed as a replacement for this junior homonym.

Scolytodes aterrimus, n. n.

Hylocurosoma atrum Eggers, 1943, Mitteilungen Münchner Ent. Ges. 33:371 (Holotype, sex?; Bolivia, Cochabamba; Paris Museum), preoccupied

When *Hylocurosoma atrum* Eggers was transferred to *Scolytodes*, the change in gender of the genus required that spelling of the

specific name be changed to *ater*. This name thus became a junior homonym by page priority of *Prionosceles ater* Eggers 1943:365 (now in *Scolytodes*) that was validated in the same article. The new name *Scolytodes aterrimus* is proposed as a replacement for the junior name cited above.

Scolytodes boliviensis, n. n.

Prionosceles bolivianus Eggers, 1928, Arch. Inst. Biol. São Paulo 1:88 (Lectotype, sex?; Bolivia, Cochabamba; U.S. National Museum, designated by Anderson and Anderson, 1971, Smithsonian Contrib. Zool. 94:7), preoccupied

The transfer of *Prionosceles bolivianus* Eggers 1928:88 to *Scolytodes* caused this name to become a junior homonym by page priority of *Scolytodes bolivianus* Eggers 1928:86 that was validated in the same article. The new name *boliviensis* is proposed as a replacement for the junior name.

Scolytodes brasilianus, n. n.

Hexacolus brasiliensis Schedl, 1935, Stylops 4:274 (Holotype, sex?; Brazil; Schedl Collection in Wien Museum), preoccupied

The transfer of both *Prionosceles brasiliensis* Eggers 1928:89 and *Hexacolus brasiliensis* Schedl 1935:274 to *Scolytodes* caused the Schedl name to become a junior homonym. The new name *brasilianus* is proposed as a replacement for the junior name.

Scolytodes discriminatus, n. n.

Scolytodes discendus Eggers, 1943, Mitteilungen Münchner Ent. Ges. 33:360 (Holotype, sex?; Bolivia, Cochabamba; Paris Museum), preoccupied

The transfer of *Hexacolus discedens* Eggers (1940, Arb. Morph. Taxon. Ent. Berlin 7:133) to *Scolytodes* created a junior homonym of *Scolytodes discedens* Eggers 1943:360 cited above. The new name *discriminatus* is proposed as a replacement for the junior name.

Scolytodes elongatissimus, n. n.

Hylocurosoma elongatum Eggers, 1943, Mitteilungen Münchner Ent. Ges. 33:369 (Holotype, sex?; Bolivia, Cochabamba; Paris Museum), preoccupied

The transfer of *Hylocurosoma elongatum* Eggers 1943:369 to *Scolytodes* required that spelling of the specific name be corrected to

elongatus. This action made Eggers name a junior homonym of *Scolytodes elongatus* Schedl (1935, *Stylops* 4:273). Although the Schedl name is a junior synonym of *S. trispinosus* Eggers 1934, it is an available name and requires that *elongatus* Eggers be replaced. The new name *elongatissimus* is proposed as a replacement for this junior homonym.

Scolytodes gennaeus, n. n.

Scolytodes genialis Wood, 1978, *Great Basin Nat.* 38(4):403 (Holotype, female; 30 km N Merida, Merida, Venezuela; Wood Collection), preoccupied

The name of *Scolytodes genialis* Wood 1978:403 is preoccupied by *Scolytodes genialis* Wood 1975:27 and must be replaced. The new name *gennaeus* is proposed as a replacement for this junior homonym.

Scolytodes laevigatulus, n. n.

Hexacolus laevigatus Schedl, 1962, *Mitteilungen Münchner Ent. Ges.* 52:98 (Holotype, male; Argentina, Misiones, Dept. Concept., Sta. Maria; Schedl Collection in Wien Museum), preoccupied

The transfer of *Hexacolus laevigatus* Schedl 1962:98 to *Scolytodes* made the Schedl name a junior homonym of *Scolytodes laevigatus* Ferrari. The new name *laevigatulus* is proposed as a replacement for this junior homonym.

Scolytodes laevicorpus, n. n.

Hylocurosoma laeve Eggers, 1943, *Mitteilungen Münchner Ent. Ges.* 33:367 (Holotype, sex?; Bolivia, Cochabamba; Eggers Collection, on loan to Schedl), preoccupied

The transfer of *Hylocurosoma laeve* Eggers 1943:367 to *Scolytodes* and the change in gender of the generic name dictates that spelling of the specific name be changed to *laevis*. That action caused the name *laevis* (Eggers 1943:367) to become a junior homonym when *Prionosceles laevis* Eggers 1928:88 was also transferred to *Scolytodes*. The new name *laevicorpus* is proposed as a replacement for this junior homonym.

Scolytodes majus, n. n.

Scolytodes major Eggers, 1943, *Mitteilungen Münchner Ent. Ges.* 33:361 (Holotype, sex?; Bolivia, Cochabamba; U. S. National Museum)

The transfer of *Prionosceles major* Eggers 1928:86 to *Scolytodes* caused *Scolytodes major* Eggers 1943:361 to become a junior homonym. The new name *majus* is proposed as a replacement for this junior homonym.

Scolytodes medialis, n. n.

Scolytodes medius Eggers, 1943, *Mitteilungen Münchner Ent. Ges.* 33:359 (Holotype, male; Bolivia, Cochabamba; Paris Museum), preoccupied

The transfer of *Prionosceles medius* Eggers 1928:89 to *Scolytodes* caused *Scolytodes medius* Eggers 1943:359 to become a junior homonym. The new name *medialis* is proposed as a replacement for this junior homonym.

NEW SYNONYMY

In order to provide a basis for listing names in synonymy for the new world catalog of Scolytidae, the following proposals are presented.

Dactylipalpus niger Schedl

Dactylipalpus niger Schedl, 1961 (March?), *Philippine J. Sci.* 90(1):87 (Luzon, Laguna, Mt. Makiling, 2,000 ft; Schedl Collection in Wien Museum)

Dactylipalpus unctus Wood, 1961 (May), *Great Basin Nat.* 21:8 (Holotype, female; Mt. Makiling, Laguna, Philippine Islands; British Museum, [Nat. Hist.]). *New synonymy*

When I received a series of this species from the California Academy of Science, I was told that one specimen might have been sent to Schedl. An inquiry to Schedl brought the response that only one species of *Dactylipalpus* occurred in the Philippines and that if I had another I should name it and he would refrain from doing so should the specimen mentioned in my letter reach him. One can only speculate as to what happened either before or after that letter with respect to this species. His specimen quite clearly was sent to him by the California Academy of Science from the same series sent to me, but their ownership was not acknowledged and the specimen resides at the Wien Museum. The holotype of *niger* and a paratype of *unctus* were compared directly; both the specimens and their locality labels are identical.

Dendroctonus armandi Tsai & Li

Dendroctonus armandi Tsai & Li, 1959, K'un chung hsueh chi K'an (Opera Entomologic), Peking, p. 80 (Holotype, sex?; North China; Institute of Zoology, Academia Sinica, Beijing)

Dendroctonus prosorovi Kurenzov & Kononov, 1966, Pages 29–33 in A. I. Cherepanov, Instit. Biol., Acad. Sci., Siberian Br., (Holotype, sex?; Yunnan Province, China; Lab. Ent. Coll. Inst. Soil Biol., Far Eastern Br., Academy of Science, USSR). *New synonymy*

My series of *Dendroctonus armandi* Tsai & Li was compared by H. F. Yin to the holotype. Authentic specimens of *armandi* were sent to Kurenzov before his death and he agreed that they were the same species, but he apparently never published that information. I have talked to or have a letter from two other workers who also claim to have seen the type of *prosorovi* and agree on the synonymy, but I have not yet located the type. In view of the fact that both types came from *Pinus armandii*, that *prosorovi* was taken within the known distribution of *armandi*, that the descriptions and illustration do not disagree, and that only one species of small *Dendroctonus* is known from China, it is concluded that these names are synonymous as indicated above.

Sinophloeus porteri Brèthes

Sinophloeus porteri Brèthes, 1922, Rev. Chilena Hist. Nat. 25:434 (Holotype, male; Province de Cautin, Chile sur *Nothophagus oblique*; Brèthes Collection)

Sinophloeus destructor Eggers, 1942, Zool. Anzeiger 139:15 (Holotype, female; Chile [Chillan]; Hamburg Museum [lost], 2 cotypes in Eggers Collection). *New synonymy*

Several years ago Dr. G. Kuschel sent a pair of *Sinophloeus porteri* Brèthes 1922:434 to me that he had compared to the holotype. Since then I have compared a series of this species to the Eggers cotypes of *S. destructor* Eggers 1942:15 and to the Kuschel specimens and find no characters that distinguish these taxa except for secondary sexual characters. All specimens are from *Nothophagus*. The Eggers name must, therefore, be placed in synonymy as indicated above.

NEW TAXA

Acacicis bicornis, n. sp.

This species is unique in the genus in frontal, pronotal, and elytral sculpture and in

vestiture as described below.

MALE.—Length 1.4 mm (paratypes 1.4–1.6 mm), 1.4 times as long as wide; color black, vestiture pale.

Frons deeply concave from eye to eye from epistoma to upper level of eyes, this sulcus continuing to broadly flattened area from upper level of eyes to vertex; lateral margins at upper level of eyes armed by a pair of prominent tubercles; surface minutely rugose-reticulate, punctures not clearly evident, minute; vestiture in lower concavity at least partly bifid, those above stout, sparse, short, not divided.

Pronotum 0.62 times as long as wide, widest at base, sides rather strongly, arcuately converging to strong constriction just behind anterior margin; surface rugose-reticulate, unarmed except for two or three small tubercles near anterior margin; punctures minute, rather abundant. Vestiture on sides and posterior third of disc with pale, rather long, bifid hair, remaining area of disc with mostly undivided, darker setae.

Elytra 0.91 times as long as wide; sides weakly arcuate and subparallel on basal third, then arcuately converging to declivital tubercles, posterior margin between tubercles almost straight; feeble impressions indicate position of striae, but punctures not evident; surface smooth, shining, punctures small, distinct, close, confused. Declivity beginning one-third of elytral length from base, moderately steep, very broadly convex; sculpture as on disc except prominent subtuberculate prominences at posterior end of interstriae 5 (a generic character). Vestiture of abundant, short, apparently bifid, almost scalelike setae, and erect, hairlike setae twice as long as short setae.

FEMALE.—Similar to male except frons almost convex, somewhat flattened on lower half.

TYPE MATERIAL.—The male holotype, female allotype, and two damaged male paratypes were taken near Bulolo, Morobe District, New Guinea, 6 August 1972, from the bark of a partly uprooted tree seedling, by me.

The holotype, allotype, and paratypes are in my collection.

Acacicis zeylanicus, n. sp.

The small size and numerous, widely

distributed pronotal asperities distinguished this species from all other previously named members of the genus.

MALE.—Length 1.4 mm (paratypes 1.3–1.5 mm), 1.4 times as long as wide; color almost black, vestiture pale.

Frons moderately concave on lower two-thirds of area below upper level of eyes, slightly convex above; surface finely, somewhat obscurely rugose-reticulate, punctures not evident, upper half with sparse, fine granules; vestiture of moderately abundant, coarse, rather long hair.

Pronotum 0.65 times as long as wide; widest at base, arcuately, strongly converging toward anterior margin; surface smooth, shining, anterior three-fourths rather uniformly armed by small, rather numerous tubercles, posteromedian area with small, distinct punctures. Vestiture of uniformly distributed, short, stout hair.

Elytra 0.93 times as long as wide; sides almost straight and parallel on basal third, then arcuately converging to broadly rounded posterior margin, declivital major tubercle projecting slightly at posterolateral angles; basal crenulations low, forming a distinct marginal row, a submarginal row also present; striae distinctly, narrowly impressed, punctures in rows, distinct, very small; interstriae distinctly convex, almost smooth, surface dull, setiferous punctures small, three-ranked. Declivity beginning one-third elytral length from base, rather steep, very broadly convex; sculpture much as on disc except interstriae 1 strongly narrowed toward apex, a large, blunt tubercle at apex of 5 (a generic character), interstriae 2–9 each with a few low tubercles toward apex. Vestiture hairlike, three-ranked on each interstriae, middle rank slightly longer and distinctly coarser.

FEMALE.—Similar to male except frons more evenly convex.

TYPE MATERIAL.—The male holotype, female allotype, and 115 paratypes were taken at Buttala, Sri Lanka, 6 June 1975, elevation 50 m, No. 147, from a liana 3 cm in diameter, by me.

The holotype, allotype, and half of the paratypes are in the U.S. National Museum; the remaining paratypes are in my collection.

Sphaerotrypes bengalensis, n. sp.

This species is allied to *tsugae* Tsai & Yin,

from China; they share the large size and shape, and nine rows of setae on the antennal club; this species is distinguished from *tsugae* by the finer sculpture and by the unique arrangement of elytral setae.

MALE.—Length 3.3 mm (paratypes 3.4–3.6 mm), 1.4 times as long as wide; teneral color light brown, vestiture apparently dark.

Frons weakly impressed on lower half, flattened above, lateral areas of lower half with a few lateral tubercles, a weak median carina on lower third; vestiture of abundant, multiply divided setae, surface largely obscured. Antennal club with nine transverse rows of setae.

Pronotum outline as for genus; punctures coarse, very close, interspaces much less than one-fourth diameter of a puncture; vestiture all of one kind of suberect scale, each about three times as long as wide, short, close, rather abundant.

Elytra about as wide as long; striae abruptly, deeply, narrowly impressed, punctures rather coarse, very close; interstriae rather weakly convex, three to four times as wide as striae, small crenulations restricted to near base. Declivity gradual, beginning on basal fourth, broadly convex, sculpture as on disc; interstitial punctures confused, rather small, very deep, some with posterior margin feebly subcrenulate. Vestiture all of one kind, small, erect scales at posterior bottom of puncture, each scale about twice as long as wide, of uniform length throughout.

FEMALE.—Similar to male except frons more distinctly convex.

TYPE MATERIAL.—The male holotype and female allotype were taken at Samsingh, Kalimpong, Bengal, India, III-1934, by Mohan Lall, from sahaje jahara; 2 male paratypes bear similar data except they were taken on 5-X-1933.

The holotype and allotype are at the Forest Research Institute, Dehra Dun; the paratypes are in my collection.

Sphaerotrypes costatus, n. sp.

This species is distinguished from *cristatus* Wood by the very different sculpture of the elytral declivity.

MALE.—Length 2.2 mm (paratypes 2.3–2.4 mm), 1.4 times as long as wide; mature color dark brown.

Frons as in *cristatus*.

Pronotum as in *cristatus* except several larger punctures with their lateral margin very weakly crenulate.

Elytra 1.03 times as long as wide; sides straight and subparallel on more than basal half, broadly rounded, then sinuate between interstriae 3; striae narrowly, abruptly, deeply impressed, punctures very small, rather close; interstriae six times as wide as striae, surface rugose, crenulations very small except on basal margin and submargin and on base of declivity. Declivity beginning rather abruptly one-fourth elytral length from base, rather steep, very broadly convex; as in *cristatus* except crenulations obsolete except on interstriae 7 (these larger, 6 in number), 8 more strongly costate, this costa extending farther toward base and apex continuing to and slightly up 3; interstriae on base of declivity each with about three coarse crenulations, each about two-thirds as wide as an interstriae. Vestiture as on *cristatus* except erect scales wider, each about three times as long as wide.

FEMALE.—As in male.

TYPE MATERIAL.—The male holotype and female allotype are from North Andaman [Island], 11-III-1930, C. F. C. Beeson, from *Dipterocarpus turbinatus*; 3 male paratypes bear the same data except they were taken 18-XII-1928.

The holotype and allotype are in the Forest Research Institute, Dehra Dun; the paratypes are in my collection.

Sphaerotrypes cristatus, n. sp.

This species is distinguished from *siwalikensis* Stebbing by the larger size and by the very different elytral sculpture as described below. This species was cited as *vateriae* Beeson, nomen nudum.

MALE.—Length 3.0 mm (paratypes 3.0–3.5 mm), 1.4 times as long as wide; color brown to very dark brown.

Frons convex, a feeble impression on lower half and near vertex; a short, feeble, median carina indicated on lower third; surface apparently smooth, shining, and finely, closely punctured, largely obscured by short bifid hair and small scales; eyes separated by 1.4 times width of an eye.

Pronotum as in *ranasinghei* except some setae in ground cover bifid.

Elytra 1.1 times as long as wide; sides

almost straight and parallel on basal half then arcuately converging to rather narrowly rounded posterior margin; striae strongly, abruptly, rather deeply impressed, punctures very small, rather close; interstriae moderately convex, four times as wide as striae, basal fourth of 1–4 with a row of coarse crenulations, these abruptly decrease in size and become obsolete on declivity, on 5 and 6 crenulations attain middle of elytra, on 7 they extend to apex. Declivity rather gradual, beginning on basal fourth, broadly convex; interstriae narrower, sculpture as on posterior disc, 8 very strongly, acutely costate on mesal margin from base of declivity to interstriae 3, 9 similarly but very weakly costate. Vestiture of ground cover of very minute scales, and rows of longer, erect scales, each erect scale four times as long as wide and one-fourth as long as width of an interstriae.

FEMALE.—As in male except for segmentation of abdomen.

TYPE MATERIAL.—The male holotype and five paratypes were taken at Gilmale, Rat. Distr., Sri Lanka, 17 May 1975, No. 19, from *Callophyllum* sp., by me; the female allotype and six paratypes are from Weddagala, Rat. Dist., Sri Lanka, 19 May 1975, No. 37, from *Doona cordifolia*, by me; 4 paratypes are from Thandikela, Ratnapura, Sri Lanka, 2000, 28-XII-1934, *Vateria copalifera*.

The holotype, allotype, and six paratypes are in the U.S. National Museum, 2 paratypes are in the Forest Research Institute, Dehra Dun, and the remaining paratypes are in my collection.

Sphaerotrypes pentacme, n. sp.

This species is distinguished from *quadrituberculatus* Sampson by the more strongly impressed basal half of the striae, by the more narrowly rounded interstriae, and by other characters described below.

MALE.—Length 2.8 mm (paratypes 2.8–3.0 mm), 1.4 times as long as wide; color dark brown, vestiture pale.

Frons shallowly impressed on lower half, somewhat flattened between eyes; surface smooth, shining, covered by abundant setae multiply divided to their bases, carina absent, small tubercles apparently in lateral areas; antennal club with six rows of setae.

Pronotum typical of genus; surface smooth, shining, punctures very small, abundant, a

few larger ones intermixed posteriorly; ground vestiture of abundant, minute hair, and a few erect, longer scales.

Elytral outline similar to *quadrituberculatus*, striae on posterior half of disc much more strongly impressed, much wider; interstriae almost as wide as striae, rather narrowly convex, 3, 5, and 7 with crest undulating, one or two undulations forming a coarse tubercle on these interstriae. Declivity moderately steep, broadly convex, beginning at middle of elytra; interstriae 3 and 5 each with three widely spaced, coarse tubercles, 7 weakly elevated and with tubercles indicated but less definite and closer, junction of 2 and 9 with a coarse tubercle as in *quadrituberculatus*. Ground vestiture not evident, each interstriae with an indefinite row of erect scales, each scale about twice as long as wide and spaced within a row by length of a scale.

FEMALE.—Similar to male except frons more strongly convex and discal interstriae more broadly convex.

TYPE MATERIAL.—The male holotype, female allotype, and one male and one female paratype were taken at Mohnyin Res., Myitkyina (Burma), 9-X-1928 (26-VII or 12-VIII-1928), C. F. C. Beeson, from *Pentacme suavis*.

The holotype and allotype are in the Forest Research Institute, Dehra Dun; the paratypes are in my collection.

Sphaerotrypes ranasinghei, n. sp.

This species is distinguished from *coimbatorensis* Sampson (based on examination of the type; Schedl confused no less than three species under this name) by the smaller size, by the much more narrowly separated upper eyes, by the near absence of a frontal carina, and by other characters described below.

MALE.—Length 1.6 mm (paratypes 1.5–1.8 mm), 1.4 times as long as wide; color very dark brown, vestiture pale on pronotum.

Frons convex, except slightly impressed just above epistomal margin on median third; a fine, weak, median carina except just above epistoma; surface rugose-punctate, largely obscured by erect scalelike setae; upper eyes narrowly separated by a distance less than width of an eye.

Pronotum typical of genus, without any crenulations; surface smooth, dull, densely, rather finely punctured, interspaces equal to

about half width of a puncture; a pair of larger punctures near base separated by one-third width of pronotum bear a pair of long, stout setae; vestiture of scales, mostly short, recumbent, a few twice as large.

Elytra as long as wide; arcuate almost from base; striae shining, strongly, narrowly impressed, punctures very small, widely spaced; interstriae six times as wide as striae, closely punctured, each with a row of narrow, sharply pointed tubercles. Declivity rather steep, evenly convex; sculpture as on disc except interstriae become narrower. Ground vestiture of small, dark scales, each as wide as long, and rows of lighter, erect scales, each twice as long as ground cover.

FEMALE.—As in male, except for segmentation of abdomen; frontal carina usually obsolete.

TYPE MATERIAL.—The male holotype, female allotype, and 22 paratypes were taken at Kanneliya, Sri Lanka, 22 May 1975, 250 m, No. 54, from an unidentified log, by me.

The holotype, allotype, and 10 paratypes are in the U.S. National Museum, and the remaining paratypes are in my collection.

Xylechinus ougeinia, n. sp.

This species is distinguished from *darjeelingi* Schedl by the smaller size, by the uniseriate interstitial tubercles, by the sparse ground setae, and by coarser, erect, interstitial bristles.

FEMALE.—Length 1.5 mm (paratypes 1.6–1.7 mm), 2.1 times as long as wide; color light brown, vestiture pale.

Frons similar to *padus* except punctures much larger, shallower, closer.

Pronotum 0.84 times as long as wide, widest at base, sides very feebly arcuate, converging toward almost imperceptible constriction near anterior margin; surface smooth, shining; punctures coarse, very close, moderately deep except indefinite, rather small and obscure on anterior fifth; vestiture of short, fine, moderately abundant hair.

Elytra 1.4 times as long as wide, 1.9 times as wide as pronotum; sides almost straight and parallel on basal two-thirds, rather broadly rounded behind; striae weakly impressed, punctures coarse, deep, close; interstriae slightly wider than striae, weakly convex, smooth, shining, each armed by a row of

rather closely set tubercles of moderate size. Declivity convex, steep, sculpture essentially as on disc. Vestiture of rows of fine strial hair and interstriae with sparse ground setae and erect, close bristles; bristles moderately stout, extending on all rows from base to apex, each slightly shorter than distance between rows. Abdomen rises slightly to meet elytra.

TYPE MATERIAL.—The female holotype and two female paratypes are labeled Asan R., Dehra Dun, M. Bose, 17-VIII-1928, S.E.'s No. 531, RRD930, B.C.R. 297, Cage 1001 ex *Ougeinia dalbergioides*.

The holotype is in the Forest Research Institute; the paratypes are in my collection. There are 13 additional specimens in the Forest Research Institute.

Xylechinus padus, n. sp.

This species was designated as *Aniphagus padus* (nomen nudum) in Beeson's 1941 (second printing) *Ecology and Control of the Forest Insects of India and the Neighboring Countries*, p. 285. Although it has been cited several times in the literature, the name has not previously been validated.

This species is larger than other Indian *Xylechinus*, it has very different vestiture, and it has declivital interstriae 1 and 3 distinctly elevated.

FEMALE(?).—Length 2.7 mm (paratypes 2.7–3.0 mm), 2.4 times as long as wide; color very dark brown, vestiture pale.

Frons broadly convex, a feeble median impression on lower half, pre-epistomal margin rather abrupt on median two-thirds; surface smooth and shining, feeble reticulation becoming slightly stronger laterally, much stronger toward vertex; punctures rather small, distinct, moderately coarse; vestiture of sparse, fine, rather short hair.

Pronotum 0.95 times as long as wide; sides on basal half almost parallel, very weakly constricted on anterior half; surface smooth, shin-

ing, punctures moderately large, very close, rather deep, interspaces equal to less than one-third diameter of a puncture. Vestiture of moderately abundant, fine, rather short hair.

Elytra 1.6 times as long as wide, 2.1 times as long as pronotum; striae slightly impressed, punctures moderately impressed, close, those on 1 and 2 usually with a small tubercle arising from their interior, lateral punctures often with a similar tubercle; interstriae distinctly wider than striae (about 1.5 times), distinctly convex, 1 and 3 slightly more strongly elevated on posterior half of disc, 1 and 3 each with a row of small, subcrenulate tubercles throughout, others usually with smaller tubercles near base. Declivity convex, steep; odd-numbered interstriae distinctly elevated, elevation of 3 joins 9 then continues almost to 1; odd-numbered interstriae each with a few to many small tubercles, others unarmed. Vestiture of moderately abundant, short, almost hairlike setae throughout; odd-numbered interstriae on posterior half of disc and declivity each with a row of erect, slender bristles, each as long as width of an interstriae.

MALE.—The only identifiable male is as in female, except frons without median impression.

TYPE MATERIAL.—The female(?) holotype and one paratype are labeled Mundali, 8,500', Chakrata, U.P., C. F. C. Beeson, 17-VI-1924, ex *Prunus padus*; 2 paratypes, U. Mundali, 7,200', Pir Panjal, Kashmir, 10-V-1928, C. F. C. Beeson, ex *Prunus padus*; one paratype Baghi 8,500', Simla Hills, C. F. C. Beeson, ex *Xammor*; one paratype Tarathachi, 10,500', Tharoch, Simla, Punjab, 27-V-1924, C. F. C. Beeson, *Prunus padus*.

The holotype and one paratype are in the Forest Research Institute, and the remaining paratypes are in my collection. In addition to these, 44 other specimens are in the Forest Research Institute.